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Relativistic Kinetic Theory of Statistical Systems with Conformally Invariant Interparticle Scalar Interaction

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Abstract

© 2016, Springer Science+Business Media New York.A self-consistent mathematical model of a plasma of scalar charged particles is formulated for a conformally invariant scalar field on the basis of relativistic kinetic theory. It is shown that the cosmological model based on a conformally-invariant phantom scalar field is scale-invariant in the ultra-relativistic limit.

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Keywords

conformal invariance, kinetic theory, scalar interactions